Sri Datta Budaraju

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Education

- **KTH Royal Institute of Technology** Stockholm, Sweden
  Master of Science in Computer Science; Track: Machine Learning *Aug. 2018 - Present*
  Relevant Courses: Robotics and Autonomous Systems, Speech Technology, Artificial Intelligence, Machine Learning
- **Amrita Vishwa Vidyapeetham** Coimbatore, India
  Bachelor of Technology, Computer Science; GPA: 8.69 *Aug. 2015 - July 2018*
  Relevant Courses: Intelligent Systems, Principles of Digital Image Processing, Natural Language Processing, Python Open Lab, Probability and Random Process, Linear Algebra, Queueing theory and Optimization

Certifications

- **DeepLearning.ai Specialization by Andrew NG**: 5 courses: Neural Networks and Deep Learning, Improving Deep Neural Networks, Structuring Machine Learning Projects, Convolutional Neural Networks, Sequence Models
- **Self-Driving Car Fundamentals by Udacity**: HD Maps, Localization, Perception, Planning, Prediction and Control

Experience

- **DataKind - Google.org** Remote
  Proposal Reviewer - Google AI's Impact Challenge for Social Good *Jan. 2019 - Present*
  - **AI Project Review**: Assess the feasibility and scalability of AI based project by companies seeking Google fund
- **KTH Formula Student** Stockholm, Sweden
  Lead Perception Engineer - Driverless F1 racing *Oct. 2018 - Present*
  - **Data Collection and Labelling**: Set up race tracks using color-coded traffic cones and collected training data using Velodyne VLP 16 Lidar and Zed Camera. Annotated images and 3d point cloud for training and validation
  - **Object detection**: Working on squeeze net inspired Deep learning models and point cloud clustering techniques to detect cones and provide real-time object detection for a racing scenario
- **GeeksforGeeks** Coimbatore, India
  Campus Ambassador *Aug. 2017 - Aug. 2018*
  - **Workshops**: Organized hands-on workshops for students and trained around 200 fellow students in Android development. Collaborated with the best of them on an official application for the university.
- **Amrita Multidimensional Data Analysis Lab** Coimbatore, India
  Research Assistant - Collaborated with Dr. Vidhya Balasubramanian, Ph.D., UCI *March 2017 - March 2018*
  - **WiFi Experiments**: Set up an environment with 8 WiFi routers and 8 BLE beacons in the university building and studied the WiFi patterns in complex indoor environments and analyzed the trends in 2.4 and 5GHz.
  - **Localization Algorithms**: Used multi-point triangulation techniques with Weighted Dynamic Circle Expansion to pin point the mobile device
  - **Deployment**: Deployed the algorithms using android applications to record IMU sensor data, dual band WIFI and BLE signal readings. Process the collected input to display the estimated pinpoint location on a scaled map

Programming Skills

- **Languages**: Python, MATLAB, C, Java, PDDL, SQL
- **Libraries**: OpenCV, Keras, TensorFlow, PCL, OpenGL
- **Computing platform**: ROS, Ubuntu, Android, Arduino, Colabs, Firebase, Raspberry Pi, Windows

Projects

- **Accident Anticipation using Deep Learning**: Python, Keras, Google Colabs *April 2018 - July 2018*
  Real-time accident detection in videos using Hierarchical Recurrent Neural Networks with LSTM cells for scene understanding for autonomous vehicles. Trained the Neural Network using hand sampled accident clips from YouTube
- **Safe Rider - Drive Assistant**: Java, Android Studio, Google Maps APIs, Firebase *Oct. 2017 - Jan. 2018*
  Road safety Voice assistant which warns riders of road hazards like potholes in real-time. Detects hazards using onboard IMU sensors and Crowd-Sources the detection to cloud database to alert other riders travelling that path. Won 1st prize in a 24 hours hackathon hosted by Internet and Mobile Association of India
- **Twitter'e'con - Live Sentiment Analysis**: Python, NLTK, Sci-Kit, Tweepy, TKinter *Sept. 2017 - Oct. 2017*
  Sentimental Analysis tool to analyze real-time trends of specific keywords in Twitter feeds. Classified live tweets from twitter API using ensemble modeling and implemented live graphical visualizations
- **Lego Self Exploring Bot**: Lego Mindstorms, Lego NXT *May 2017 - May 2017*
  Object detection and avoidance robot using Lego Mindstorms brick, IR, Supersonic, touch, sound sensors to achieve Course correction, Reaction to and Search for sound sources like claps.

Publication

- **An Inventive and Innovative alternative for legacy chain pulling system through Internet Of Things-**
  Budaraju Sri Datta, Rama Ganapathy, Sini Raj P, Shriram K Vasudevan, Abhishek SN
  Indonesian Journal Of Electrical Engineering And Computer Science, 6(3), 688-694. *May 2017*